

In re: Gerald H. Negley  
Serial No. 10/811,752  
Filed: March 29, 2004  
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**AMENDMENTS TO THE DRAWINGS:**

Please amend the Drawings by entering the attached "New Sheet" of drawings including new Figure 7.

**Remarks**

This is in response to the final Office Action mailed August 22, 2007, in the above-referenced application. Claims 1-44 are pending, with Claims 6 and 19-44 having been withdrawn as being drawn to a non-elected invention.

Claim 18 is amended to correct an apparent typographical error in the formula of the recited p-type GaN layer noted by the Examiner. This amendment does not present new issues for consideration but merely corrects an apparent typographical error. Applicant accordingly respectfully requests entry of the amendment.

Applicant notes with appreciation the Examiner's indication that Claim 12 would be allowable if rewritten into independent form. Claim 12 is rewritten into independent form to advance consideration of this claim, and without prejudice or disclaimer to Applicant. This amendment does not present new issues for consideration by the Examiner but merely presents a dependent claim in independent form. Applicant accordingly respectfully requests entry of this amendment as well and an indication of the allowability of Claim 12.

The Examiner objects to new Figures 5 and 6 and the corresponding amendments to the specification presented with Applicant's Amendment filed June 15, 2006, arguing that these introduce new matter. Applicant respectfully requests reconsideration of this objection and entry of Figures 5 and 6.

Figures 5 and 6 (as well as new proposed Figure 7, discussed below) and the corresponding amendments to the specification do not violate the new matter rule. Support for Figures 5 and 6 can be found in the specification as filed, for example, at paragraphs [0049] and [0056] and claims 11 and 12. Accordingly, the amendments merely clarify or complete the original disclosure. Insertions by way of amendment in the description or drawing, or both, of a patent application are permissible if they amplify and explain what was already reasonably indicated to be within the invention. The proposed new drawings do not disclose an invention not previously described in the present application but rather simply clarify the prior disclosure and thus cannot be treated as new matter. Applicant respectfully

requests entry of new Figures 5 and 6 and withdrawal of the objection to the figures in the present application.

Applicant also submits concurrently herewith one (1) sheet with new Figure 7, labeled as "NEW SHEET" in accordance with 37 CFR 1.121(a). Proposed Figure 7 illustrates an exemplary embodiment of the invention such as recited in Claim 12. Support for Figure 7 can be found in the application as filed, for example, paragraphs [0056] – [0057], Figure 4 (as referenced by the Examiner on page 3 of the final Office Action), and claim 12. For the reasons noted above with regard to prior presented Figures 5 and 6, Applicants submit that new Figure 7 also does not introduce new matter and accordingly respectfully request entry of the same.

Claims 1, 3-5, 8 and 10 are rejected under 35 USC Section 103(a) as unpatentable over Touchy (U.S. Patent No. 3,925,121) in view of Ogihara et al. (U.S. Patent No. 5,700,714, hereinafter Ogihara). Applicant respectfully traverses this rejection for the reasons of record.

In addition, Applicant offers the following comments responsive to the Examiner's remarks on page 11 of the final Office Action. Applicant's argument is that the devices of Touchy and Ogihara differ from one another structurally, compositionally, and functionally, and that patents address different problems. Accordingly, the patents do not suggest the combination proposed by the Examiner. Indeed, the patents actually teach away from one another. The Touchy device includes a protective layer on the surface of a monocrystal. In contrast, the Ogihara process goes to great trouble to create a diffusion window 16 to expose the surface of the substrate. There is simply no motivation for one skilled in the art to combine the teachings of a patent employing a protective layer on a substrate with the teachings of a patent actively removing a layer on a substrate to expose the substrate surface to the desired impurity.

In the present application, to support the position that the claimed invention is obvious, the Examiner must pick and choose from isolated teachings in the cited patents. Yet, the law is clear that an Examiner must be able to point to something in the prior art that suggests in some way a combination of a particular reference with another reference to arrive

at the claimed invention. Absent such a showing in the prior art, the Examiner has impermissibly used the Applicants' teaching to hunt through the prior art for the recited elements and combine them as claimed. Such a showing is missing in the present application, and accordingly the Examiner relies on an improper hindsight analysis to support a conclusion of obviousness.

Claims 2, 9, 11 and 13 are rejected under 35 USC Section 103(a) as obvious over Touchy in view of Ogihara and further in view of Edmond et al. (U.S. Patent No. 5,523,589, hereinafter Edmond; Claim 2); Iguchi et al. (U.S. Patent No. 6,214,708, hereinafter Iguchi; Claim 9); and Nobori et al. (U.S. Patent No. 6,291,328, hereinafter Nobori; Claims 11 and 13). Applicant respectfully traverses these rejections for the reasons of record.

In addition, Applicant offers the following directed to the Examiner's comments on Claims 11 and 13 set forth on page 12 of the final Office Action. The Examiner appears to rely on an incorrect basis for the obviousness conclusion, stating that "there is no requirement that a primary reference must teach a motivation for the combination." Yet, the law is clear that an Examiner must be able to point to something in the prior art that suggests a combination of a particular reference with another reference to arrive at the claimed invention. As noted herein, absent such a showing, the Examiner has impermissibly used the Applicant's own teachings to hunt through the prior art for the recited elements and combine them as claimed. Such is the case in the present application.

Claims 1, 2, 7 and 14-18 are rejected under 35 USC Section 103(a) as being unpatentable over Omi et al. (U.S. Patent No. 6,549,552, hereinafter Omi) in view of Touchy and Ogihara. Applicant respectfully traverses this rejection as well for the reasons of record.

Applicant also offers the following directed to the Examiner's comments on page 13 of the final Office Action. The Examiner's comments again point to the application of an improper hindsight analysis to determine obviousness. The Examiner states that "the proposed combination would make an intermediate product." Yet obviousness is not determined by what could have been combined; the standard for determining obviousness requires a suggestion or motivation in the prior art to make the proposed combination.

Applicant continues to submit that the requisite motivation is missing, and accordingly the Examiner has again used the Applicant's own teachings to impermissibly hunt through the cited patents for the recited elements and combine them as claimed.

Indeed, the significant differences between the cited patents previously highlighted by the Applicant further emphasize the absence of any motivation to combine the teachings of the patents. Omi uses layers doped prior to application to the substrate. There is simply no motivation for the skilled artisan to combine the teachings of a patent employing a diffusion doping process with the teachings of a patent employing "pre-doped" layers, and to conclude otherwise requires an impermissible hindsight analysis of the Applicant's own disclosure.

In view of the foregoing, Applicant submits that Claims 1-18 are patentable and respectfully requests withdrawal of the rejections of record. Applicant respectfully submits that the present application is in condition for allowance, which action is respectfully solicited. Should the Examiner have any questions regarding the foregoing, it is respectfully requested that the Examiner contact the undersigned at his convenience to expedite examination and allowance of this matter.

It is not believed that extensions of time or fees for net addition of claims are required beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee

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required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 50-0332.

Respectfully submitted,

/ss/ Melissa B. Pendleton  
Reg. No. 35,459

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**Summa, Allan & Additon, P.A.**  
11610 North Community House Road, Suite 200  
Charlotte, NC 28277-2162  
Telephone: 704-945-6700  
Facsimile: 704-945-6735  
S:\FIRM DOCS\5000\197\Amendment\_012207.doc